


**AIR QUALITY****MANAGEMENT DISTRICT****AUTHORITY TO CONSTRUCT****A/C NO.:** 24569 & 24570**DATE ISSUED:** APRIL 30, 2015**DATE EXPIRES:** APRIL 30, 2017**ISSUED TO:** THE JACKSON LABORATORY**LOCATION:** 1650 SANTA ANA AVE, SACRAMENTO, CA**DESCRIPTION:**

A/C 24569 – ETHYLENE OXIDE STERILIZER MAKE: 3M STERI-VAC STERILIZER/AERATOR MODEL: 8XL  
S/N 450136

A/C 24570 – CONTROL DEVICE FOR A/C 24569 MAKE: 3M EO ABATOR MODEL: 50AN S/N 300297

**ISSUED BY:**  
DAVID R. GROSE**AUTHORITY TO CONSTRUCT CONDITIONS****START-UP REQUIREMENTS**

S1. Upon installation of the equipment authorized in this Authority to Construct, the owner/operator shall contact the Sacramento Metropolitan Air Quality Management District (SMAQMD) at (916) 874-4800 to arrange for a start-up inspection.

**[Basis: SMAQMD Rule 201, Section 405]**

S2. The permit holder will indemnify and defend SMAQMD, its officers, agents, and employees if this permit, or the environmental review of the permit under the California Environmental Quality Act (CEQA) (including exemption determinations), is challenged through a legal action. This indemnification includes attorney fees awarded against SMAQMD, as well as attorney fees, court costs, legal fees, and other expenses incurred in defending the challenge. The District will provide written notice to the permit holder within 5 days if it receives a petition, complaint or other legal notice by a third party challenging this Authority to Construct (ATC) or the environmental review of the ATC under CEQA (including exemption determinations). The permit holder may, within 10 days of notification, request cancellation of the ATC. If the permit holder requests cancellation, within 5 days SMAQMD will cancel the permit, notify the plaintiffs of the cancellation, and request dismissal of the litigation.

**[Basis: SMAQMD Rule 201, Section 405]**

S3. This Authority to Construct shall serve as a temporary Permit to Operate provided that:

- A. The SMAQMD has been notified to conduct a start-up inspection.
- B. The equipment installed matches the equipment authorized in this Authority to Construct.
- C. The equipment is operated in compliance with all conditions listed within this Authority to Construct.

**[Basis: SMAQMD Rule 201, Section 405]**

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**GENERAL**

1. The equipment shall be properly maintained and operated in accordance with the manufacturer's recommendations at all times.  
**[Basis: SMAQMD Rule 201, Section 405]**
2. The Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials shall be permitted:
  - A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Authority to Construct, and
  - B. At reasonable times to have access to and copy any records required to be kept under terms and conditions of this Authority to Construct, and
  - C. To inspect any equipment, operation, or method required in this Authority to Construct, and
  - D. To sample emissions from the source or require samples to be taken.**[Basis: SMAQMD Rule 201, Section 405]**
3. This Authority to Construct does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the Rules and Regulations of the SMAQMD.  
**[Basis: SMAQMD Rule 201, Section 405]**
4. The equipment shall not discharge such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.  
**[Basis: SMAQMD Rule 402, Section 301]**
5. A legible copy of this Authority to Construct shall be maintained on the premises with the equipment.  
**[Basis: SMAQMD Rule 201, Section 401]**

**EMISSION LIMITATIONS**

6. The sterilizer with control device permitted under A/C 24569 & 24570 shall not discharge into the atmosphere any visible air contaminant other than uncombined water vapor for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann No. 1 or equivalent to or greater than 20% opacity.  
**[Basis: SMAQMD Rule 401, Section 301]**

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7. The emissions from the sterilizer after the abatement device shall not exceed the following limits:  
**[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 301]**

Pollutant	Emission Factors (A) (g/cycle)	Maximum Allowable Emissions (C)		
		lb/day	lb/quarter	lb/year
VOC	1.7	0	0	1

(A) Emission factors for VOC is based on 170 grams of ethylene oxide used per cycle.

(B) Emissions are based on 1 cycle per day, 92 cycles per quarter and 260 cycles per year.

**EQUIPMENT OPERATION**

8. The sterilizer shall not operate more than the following cycles:  
**[Basis: SMAQMD Rule 201, Section 405]**

Pollutant	Emission Factors (A) (g/cycle)	Maximum Allowable Emissions (C)		
		Cyles/day	Cycles/quarter	Cycles/year
VOC	1.7	1	92	260

9. The average concentration of ethylene oxide shall not exceed:  
A. 30 g/ml in any liquid discharge associated with the sterilization cycle  
**[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93108 (e)(3)]**
10. The exhaust systems and ethylene oxide supply system including, but not limited to, any piping, ducting, fittings, valves, or flanges, through which ethylene oxide-contaminated air is conveyed between the sterilizer, aerator and the control device shall be leak-free;  
**[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93108 (e)(1)]**
11. The control device shall be in operation at all times during operation of the sterilizer, as required by the manufacturer and maintain a control efficiency of the of at least 99.0% destruction by weight.  
**[Basis: SMAQMD Rule 201, Section 405 and Title 17 CCR, Section 93108 (e)(2)]**
12. The abatement device shall be recertified by the manufacturer after 750 cycles.  
**[Basis: SMAQMD Rule 201, Section 405]**
13. The exhaust stack of the sterilizer shall exit vertically and shall not be obstructed during operation. A flapper-type rain cap will comply with this condition provided it does not impede the vertical flow of exhaust.  
**[Basis: SMAQMD Rule 201, Section 405 and Rule 402, Section 301]**

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**SOURCE TEST**

14. A source test of the ethylene oxide sterilizer shall be conducted within 30 days of initial start-up and every other year thereafter to verify the control efficiency of the abatement device. The source test shall be conducted using CARB test method 431.

A. Submit a source test plan two weeks prior to source test date

B. Submit the final source test report no later than 60 days after the completion of the source test.

**[Basis: SMAQMD Rule 201, Section 405 and Rule 402, Section 301]**

**RECORDKEEPING & REPORTING**

15. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the Air Pollution Control Officer upon request. Monthly, quarterly, and annual records shall be made available within 30 days of the end of the reporting period.

**[Basis: SMAQMD Rule 201, Section 405]**

Frequency	Information to be Recorded
At all times	A. MSDS of the Ethylene Oxide canister B. Documentation showing the quantity of Ethylene Oxide per canister.
Daily	C. Total number of cycles (cycles/day)
Quarterly	D. Total number of cycles. (cycles/quarter)
Annually	E. Total number of cycles. (cycles/year)

16. Unless otherwise directed by the SMAQMD, by January 31<sup>st</sup> of every year, the permittee shall submit to the SMAQMD the total number of hours each engine operated during the previous year for maintenance, emergency, and total (maintenance + emergency + other). Copies of the ANNUAL ENGINE SURVEY can be found at [www.airquality.org](http://www.airquality.org). Upon determination of applicability and written notification by the SMAQMD, the permittee shall also comply with any other applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.).

**[Basis: SMAQMD Rule 201, Section 303.1]**

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Your application for this air quality Authority to Construct was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following listed rules are those that are most applicable to the operation of your equipment. Other rules may also be applicable.

<u>SMAQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS (8-24-06)
202	NEW SOURCE REVIEW (8-23-12)
401	RINGELMANN CHART (4-19-83)
402	NUISANCE (8-3-77)
<u>STATE</u>	<u>REGULATION TITLE</u>
TITLE 17 CCR SECTION 93801	CARB AIR TOXICS CONTROL MEASURES - ETHYLENE OXIDE AIRBORNE TOXIC CONTROL MEASURE (ATCM) FOR STERILIZERS AND AERATORS

In addition, the conditions on this Authority to Construct may reflect some, but not all, requirements of these rules. There may be other conditions that are applicable to the operation of your equipment. Future changes in prohibitory rules may establish more stringent requirements which may supersede the conditions listed here.

For further information please consult your SMAQMD rulebook or contact the SMAQMD for assistance.